

Applicant : Richard S. Ginn
Appl. No. : 10/751,051
Examiner : Bruce Edward Snow
Docket No. : 15457.4008 (Formerly 704117.4009)

REMARKS

The Office Action dated November 12, 2004 has been carefully considered. In that Action, the Examiner rejected claims 7-11 under 35 U.S.C. § 112 and claims 7 and 8 as anticipated by Deem et al. 2001/0037808. We will discuss these rejections in order.

At page 2 of the Office Action, two rejections of claim 11 under Section 112 are set forth. It is believed that the first of these rejections was directed to claim 7 and it will be discussed in that manner. While it is not clear to Applicant that the language in claim 7 which reads “second end of the tubular device is disposed proximate the second branch” is ambiguous, Applicant has amended this language to state that the second end of the tubular device is disposed proximate to the proximal region of the second branch. Thus, as shown in Figure 2 of the present application, the second, proximal, end of the tubular device 32 is proximate to the proximal region of the second branch which is in communication with tubular member 22. Accordingly, it is believed that any possibility of ambiguity has been removed.

Claim 11 has been rejected as indefinite because it recites that the tubular member comprises a lumen having a substantially uniform diameter which the Examiner has characterized as being in conflict with claim 7 which claims “a tubular device comprising a narrow region.” The Examiner’s attention is respectfully called to Figures 2 and 5B of the present application. As can be seen from those Figures, tubular device 26 has lumen 34 which creates a narrow flow region, but which has a substantially uniform diameter. Thus, it is believed that claims 7 and 11, as originally written are entirely consistent, but, for purposes of clarity, claim 7 has been amended to recite that the tubular device has a lumen which has a smaller cross-section than the first branch and claims 7 and 8 have been amended to delete the recitation “narrow region”. Thus, while it is believed to have been clear that claim 7 as originally written was silent as to whether tubular device 26 had a uniform cross-section or a tapered cross-section,

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it is now clear that claim 7 is generic with regard to the configuration of the cross-section of the tubular device and that claim 11 specifically recites a tubular device having a lumen of substantially uniform diameter.

In light of the above, it is respectfully submitted that the rejection of the claims under 35 U.S.C. § 112 should be withdrawn.

Claims 7 and 8 have been rejected as unpatentable over the Deem et al. 2001/0037808 reference. It is respectfully submitted that the Deem et al. 2001/0037808 reference discloses nothing more than one-way valve which can be implanted in a branch passage of a lung to permit air to flow out of such a branch during exhaling, but to prevent air from entering the branch during inhaling. The invention claimed in the present application is profoundly different from the disclosure of Deem et al. 2001/0037808. Once again, the Examiner's attention is called to Figures 2 and 5B of the present application. Unlike Deem et al., the method of claims 7 and 8 comprises implanting a tubular device 32 which has a lumen 34 which remains open at all times, i.e., both during inhalation and during exhalation. Because this tubular device creates a narrower cross-section flow passage than would otherwise be the case, the method recited in claims 7 and 8 involves creating a higher velocity of air through the tubular device 32 than would otherwise be the case. This increased velocity causes, in turn, a vacuum at the proximal region of the second branch which vacuum functions to pull air out of the region of the lung which communicates with the second branch.

To boil it all down, the method of Deem et al. involves only the blockage of flow in one direction, namely, the direction the air flow would otherwise have during inhalation by implanting a one-way valve in one or more passages of a lung. In marked contrast, the method of the present invention involves speeding up, not blocking, the flow of air through the tubular device during exhalation and this

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speeding up induces a vacuum at the outlet region of the second branch which increases the velocity and amount of air which can be pulled out of the second branch during exhaling. Thus, it is respectfully submitted that claims 7 and 8 are plainly patentable over Deem et al.

Claims 9 and 10 were indicated as being allowable if rewritten in independent form and rewritten to remove the rejections under 35 U.S.C. § 112. Claims 9 and 10 have been rewritten as claims 12 and 13 in independent form and in a manner which is believed to remove the rejection under 35 U.S.C. § 112. In this regard, the recitation "narrow region" has been removed from claim 12 and replaced with the recitation "narrow flow path". Other amendments have been made to the claims for the purpose of clarity. Thus, claims 12 and 13 are believed to be in condition for allowance.

In summary, it is respectfully submitted that the invention of the present application is patentable over Deem et al. 2001/0037808 because the method recited in all of the claims, including claim 7 and 8 is one of assisting the flow of air out of an unhealthy portion of the lung during exhalation, not merely blocking the inhalation of air into the unhealthy portion of the lung as in Deem et al. Accordingly, it is believed that the claims as now presented in the present application are allowable and a favorable action is respectfully solicited.

The Commissioner is authorized to charge any fees required by the filing of these papers, and to credit any overpayment to Orrick, Herrington & Sutcliffe's Deposit Account No. 15-0665.

Respectfully submitted,

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